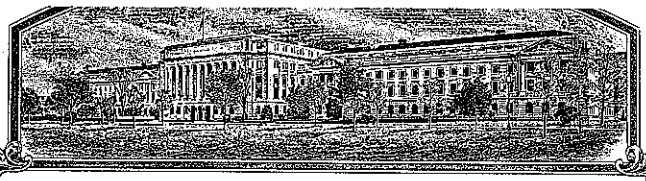
No. 9900341



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

State of Oregon, by and through the State Board of Higher Education on behalf of Oregon State University

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR USING IT IN UCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY CTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Weatherford'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this twelfth day of September, in the year two thousand one.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER: State of Oregon, by and through the State Board of Higher Education on behalf of Oregon State University	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: OR898120
	3. VARIETY NAME: Weatherford
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country): Office of Technology Transfer Oregon State University 312 Kerr Administration Building Corvallis, OR 97331-2140	5. TELEPHONE (Include area code): (541)737-0674
	6. FAX (Include area code): (541)737-3093
	FOR OFFICIAL USE ONLY PVPO NUMBER: 9900341
	FILING DATE: 6-23-1999
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.): Educational Institution	8. IF INCORPORATED, GIVE STATE OF INCORPORATION
	9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Steven J. Adamson
P.O. Box 1909
Eugene, OR 97440

FEES RECEIVED

FILING AND EXAMINATION FEES: $ 2450.00 DATE 6-23-99

CERTIFICATION FEE: $ 320.00 DATE 6/27/01

11. TELEPHONE (Include area code)	12. FAX (Include area code)	13. E-MAIL	14. CROP KIND (Common Name)
(541)687-8700	(541)687-8701	sja@ip-rights.com	Soft White Common Wheat

15. GENUS AND SPECIES NAME OF CROP	16. FAMILY NAME (Botanical)	17. IS THE VARIETY A FIRST GENERATION HYBRID?
Triticum aestivum	Graminacae	☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. ☒ Exhibit A. Origin and Breeding History of the Variety
- b. ☒ Exhibit B. Statement of Distinctness
- c. ☒ Exhibit C. Objective Description of Variety
- d. ☐ Exhibit D. Additional Description of the Variety (Optional)
- e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
- f. ☒ Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)
- g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*

☐ YES (If "yes", answer items 20 and 21 below) ☒ NO (If "no," go to item 22)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES ☒ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?

☐ YES ☒ NO

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?

☐ YES ☒ NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
William Hostetler	
NAME *(Please print or type)*: William Hostetler	NAME *(Please print or type)*:
CAPACITY OR TITLE: Director Technology Transfer	DATE: 6/9/99
CAPACITY OR TITLE:	DATE:

(12/7/99)

REVISED EXHIBIT A

Weatherford (OR898120) resulted from a top cross involving Malcolm/3/Aegilops ventricosa/Triticum persicum//Moisson///Moisson 951//2*Hill with Aegilops ventricosa/Triticum persicum//Moisson///Moisson951//2*Hill being the top cross parent.

The original selection was obtained from an individual F_2 plant. Selection criteria included spike size and fertility, synchronous tillering, semi-dwarf stature, resistance to foliar diseases Septoria Leaf Blotch (Septoria tritici), Stripe or Yellow Rust (Puccinia striiformis) and physiological maturity. Seed from this plant was solid seeded in three, three meter rows for the F_3 generation. Selection criteria in this generation included preliminary milling data (protein percentage and kernel hardness) and verification of traits selected in the previous generation. In addition, emergence, winter hardiness, and resistance or tolerance to Columbia Basin Foot Rot (Cercosporella herpotrichoides), Cephalosporium stripe (Cephalosporium gramineum) and Common Bunt (Tilletia caries and T. foetida) were assessed. Twenty-five spikes were selected from the center row, threshed and the seed bulked for planting in a similar manner for the F_4 generation. Previous traits selected were again evaluated and test weights obtained. Subsequently, 50 spikes were selected from the center row to establish the F_5 generation. Seed from the F_5 generation was in a non-replicated yield trial using nearest neighbor analysis. In addition to previous traits selected, yield was obtained. Also, 500 head rows were established and lines which were phenotypically similar were bulked for the establishment of multi-site replicated trials. In addition to previously selected traits, information on flour yield, flour ash, milling score, flour protein, and flour viscosity was obtained. In the F_6 - F_9, other traits evaluated were cookie diameter, top grain score, sponge cake volume, and sponge cake score (Tables 6 a,b,c). One thousand spikes or head rows were established. Phenotypically similar rows were bulked to provide breeders seed for the Washington Crop Improvement Association.

Evidence of uniformity and stability

From the F_5 through the production of breeders' seed, uniformity and stability were evaluated at four diverse testing sites. Weatherford may contain up to one in 10,000 bronze (red or tan) chaff spikes in the field and may have up to 10 red kernels per pound in Breeders, Foundation, Registered, or Certified classes of seed multiplications. To further determine variants in kernel color, a phenol staining reaction was determined for the various classes of seed. It was observed that 68.5% of the kernels stained are light with 31.5% being light medium. No medium, dark medium, or dark were observed. The variants described are distinct within the variety and are stable and predictable with a degree of reliability comparable to other varieties of the same kind, and within recognized tolerances, when the variety is reproduced or reconstructed, and was originally a part of the variety as released.

Exhibit B. Statement of Distinctness

Weatherford is most similar to the commercial varieties Stephens and Madsen. All three varieties are of the soft white market class, winter type, semi-dwarf, awned, and have similar levels of winterhardiness. Weatherford is similar to Madsen in its reaction and response to major wheat diseases and is superior to Stephens in its reaction to *Septoria tritici*, *Psuedocercosporella* foot rot, and *Cephalosporium* Stripe. However, Weatherford has less tolerance to Cephalosporium Stripe than Madsen. Weatherford and Madsen have the Pch-1 gene, which confers resistance to Psuedocercosporella foot rot. Stephens lacks the Pch-1 gene. Plant height of Weatherford is greater than Stephens and Madsen and it is later maturing, as indicated by days to heading. Weatherford, Madsen, and Stephens have similar milling and baking attributes and are considered to have acceptable soft wheat end-use qualities.

Supporting data for Weatherford PVP Application
Oregon State University, provided April 23, 2001.

Data that follows are from USDA-ARS Uniform Regional Soft White Winter Wheat Nurseries, 1994 through 2000, unless otherwise noted.

Heading Date
Days from January 1

	1994	1995		1996				1998
	Corvallis, OR	Bozeman, MT	Corvallis, OR	Aberdeen, ID	Bozeman, MT	Corvallis, OR	Pendleton, OR	Lind, WA
	-- Days from January 1 --							
Stephens	143	174	149	164	174	120	143	138
Madsen	134	178	142	167	177	124	143	142
Weatherford	140	178	147	169	179	124	148	142
Trial Mean	--	176	--	167	177	--	--	140
CV	--	1	--	1.6	0.4	--	--	1.3
LSD	--	2	--	5.5	1.2	--	--	3.7
No. of Entries	--	48	--	46	50	--	--	42

Lodging
0=no lodging; 9=100% lodged

	1996			1997		1998				
Idaho:	Aberdeen	Bonnersferry	Moscow	Aberdeen	Parma	Aberdeen	Bonnersferry	Moscow	Hazelton	Parma
	-- 0-9 --			-- 0-9 --		-- 0-9 --				
Stephens	5.3	3.5	1.3	3.0	8	1.7	3.5	2.5	4.0	4.3
Madsen	5.3	1.5	0	2.5	6	1.0	2.8	3.3	1.0	2.3
Weatherford	3.0	3.0	0.3	1.0	6	1.0	2.8	1.5	1.0	2.3
Trial Mean	3.5	3.6	0.8	2.3	8.6	1.4	3.3	3.9	1.7	4.0
CV	46.5	28.5	58.4	44.9	15.9	35.8	17.3	36.7	53.0	20.5
LSD	2.6	2.1	0.6	2.1	19.0	0.8	0.8	2.0	1.8	1.1
No. of Entries	46	50	50	47	49	42	42	42	42	42

Stripe Rust (Adult Plant Reaction)
% infection or 0-5 rating, with 5 as fully susceptible.

	1996		1997		1998
	Walla Walla, WA	Mt Vernon, WA	Bozeman, MT	Mt. Vernon, WA	Mt. Vernon, WA
	-- % --		0-5	%	%
Stephens	1	20	2	10	10
Madsen	0	0	1	1	1
Weatherford	0	0	1.7	1	1

Stripe Rust

Cold hardiness evaluations (LT50) conducted in growth chamber experiments in 2000 by USDA-ARS, Pullman, WA. LT50 indicates temperature at which plant survival is at 50%.

KEY	Est. LT50	U95%	L95%	Pr>Chi	Rank
Gene	-7.38739	-0.00378	-9.95282	0.0355	3
Madsen	-10.79317	-9.33648	-11.60941	0.0005	13
Stephens	-11.10486	-9.97281	-11.87147	0.002	14
Weatherford	-11.13118	-10.17475	-11.81535	0.0002	15
Eltan	-17.62112	-13.99145	-22.33378	0.0013	18

Cold hardiness

Septoria Tritici
0=no infection; 9=100% coverage of leaves

	Corvallis		
	1996	1997	1998
	-- 0-9 --		
Stephens	8	6	7
Madsen	7	3	4
Weatherford	7	5	5

4900341

Leaf Rust; % infection of flag leaf

	1995			
	Pullman	Lind	Walla Walla	Mt Vernon
	-- % --			
Stephens	5	10	5	5
Madsen	0	0	0	0
Weatherford	0	0	0	0

Washington Leaf Rust

Psuedocercosporella Foot Rot
Corvallis: R=resistant, S=susceptible based on white-head and associated lodging ratings.
Pullman: inoculated trials with susceptibility indicated by associated degree of lodging.

	Pullman, WA		Corvallis, OR
	Innoculated Trials		
	1997	1998	2000
	-- Lodging 0-9 --		-- R-S --
Stephens	0	7.7	MS
Madsen	0	6.0	R
Weatherford	0	1.3	R
Trial Mean	1.2	7.6	--
CV	99	19.4	--
LSD	1.9	2.4	--
No. of Entries	49	42	--

Psuedo FR

Mildew
% infection of flag leaf

	Walla Walla, WA		Corvallis, OR	
	1995		1996	
	Rep 1	Rep 2	Rep 1	Rep 2
	-- % --			
Stephens	0	5	20	20
Madsen	0	5	40	20
Weatherford	10	0	20	30

Mildew

Winterhardiness
0=no stand loss; 9=100% stand loss

	1994	1996	1997
Oregon:	**Pendelton**	**Helix**	**Helix**
	-- 0-9 --		
Stephens	1.25	3	3
Madsen	3.75	2	2
Weatherford	3.00	2.25	2

*Note attached table for response to cold temperature.

Plant Height
cm

	1998		1999	
Oregon:	**Corvallis**	**Pendleton**	**Corvallis**	**Pendleton**
	-- Cm --			
Stephens	91	117	105	85
Madsen	101	122	110	95
Weatherford	111	128	115	105

Winterhardiness and Plant Height

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(*Wheat*)

9900341

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S) State of Oregon, Acting by and through the State Board of Higher Education on behalf of Oregon State Univ.

ADDRESS (*Street and No. or R.F.D. No., City, State, and Zip Code*)
c/o Office of Technology Transfer
Oregon State University
312 Kerr Administration Building
Corvallis, OR 97331-2140

FOR OFFICIAL USE ONLY

PVPO NUMBER

VARIETY NAME
Weatherford

TEMPORARY OR EXPERIMENTAL DESIGNATION
OR898120

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. [ ][ ] or [ ]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1] 1=Common 2=Durum 3=Club 4=Other (SPECIFY) _____

2. VERNALIZATION:

[2] 1=Spring 2=Winter 3=Other (SPECIFY) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

[2] 1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

[2] 1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

[1] 1 = Erect 2 = Recurved [ ] 1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

[0][1] Number of Days Earlier Than Madsen *

[0][6] Number of Days Later Than Stephens *

8. ANTHER COLOR:

[1] 1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

[1][1] cm Taller Than Stephens *

[1][0] cm Shorter Than Rohde *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

9900341

10. STEM;

A. ANTHOCYANIN

[1] 1= Absent 2=Present

B. WAXY BLOOM

[1] 1=Absent 2=Present

C. HAIRINESS (last internode of rachis)

[1] 1=Absent 2=Present

D. INTERNODE (SPECIFY NUMBER) 4

[1] 1=Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

[2] 1=Absent 2=Present

[35] cm Length

11. HEAD (at Maturity):

A. DENSITY

[2] 1=Lax 2=Middense 3= Dense

B. SHAPE

[4] 1 = Tapering 2= Strap 3 = Clavate 4 = Other (SPECIFY) Fusiform

C. CURVATURE

[2] 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

[4] 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (at Maturity):

A. COLOR

[1] 1 = White 2 = Tan 3 = Other (SPECIFY)

B. SHOULDER

[1] 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

[3] 1 = Obtuse 2 = Acute 3 =Acuminate

D. LENGTH

[2] 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

[2] 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

[3] 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

[1] 1=Rounded 2=Angular

C. BRUSH

[1] 1=Short 2=Medium 3=Long

[2] 1 = Not Collared 2 = Collared

D. CREASE

[1] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[1] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

13. SEED: (continued)

E. COLOR

[1] 1 = White 2 = Amber 3 = Red 4 = Other (SPECIFY) 9900341

F. TEXTURE

[2] 1=Hard 2=Soft

G. PHENOL REACTION *(see instructions)*:

[1] 1 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

Stem Rust *(Puccinia graminis* f. sp. *tritici)* [0]

Stripe Rust *(Puccinia striiformis)* [2]

Tan Spot *(Pyrenophora tritici-repentis)* [0]

Halo Spot *(Selenophoma donacis)* [0]

Septoria nodorum (Glume Blotch) [2]

Septoria avenae (Speckled Leaf Disease) [0]

Septoria tritici (Speckled Leaf Blotch) [2]

Scab (*Fusarium* spp.) [0]

"Black Point" (Kernel Smudge) [0]

Barley Yellow Dwarf Virus (BYDV) [4]

Soilborne Mosaic Virus (SBMV) [0]

Wheat Yellow (Spindle Streak) Mosaic Virus [0]

Wheat Streak Mosaic Virus (WSMV) [0]

Other (SPECIFY) [ ]

Other (SPECIFY) [ ]

Other (SPECIFY) [ ]

Leaf Rust *(Puccinia recondita* f. sp. *tritici)* [2]

Loose Smut *(Ustilago tritici)* [0]

Flag Smut *(Urocystis agropyri)* [0]

Common Bunt *(Tilletia tritici* or *T. laevis)* [2]

Dwarf Bunt *(Tilletia controversa)* [1]

Karnal Bunt *(Tilletia indica)* [0]

Powdery Mildew *(Erysiphe graminis* f. sp. *tritici)* [2]

"Snow Molds" [0]

Common Root Rot *(Fusarium, Cochliobolus* and *Bipolaris* spp.) [2]

Rhizoctonia Root Rot *(Rhizoctonia solani)* [0]

Black Chaff *(Xanthomonas campestris* pv. *translucens)* [0]

Bacterial Leaf Blight *(Pseudomonas syringae* pv. *syringae)* [0]

Other (SPECIFY) [ ]

Other (SPECIFY) [ ]

Other (SPECIFY) [ ]

Other (SPECIFY) [ ]

15. INSECT: .(0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

9900341

PLEASE SPECIFY BIOTYPE (where needed)

Hessian Fly ***(Mayetiola destructor)***
[0] _____

Other (SPECIFY) _____
[ ] _____

Stem Sawfly ***(Cephus* spp.)**
[0] _____

Other (SPECIFY) _____
[ ] _____

Cereal Leaf Beetle ***(Oulema melanopa)***
[0] _____

Other (SPECIFY) _____
[ ] _____

Russian Aphid ***(Diuraphis noxia)***
[0] _____

Other (SPECIFY) _____
[ ] _____

Greenbug ***(Schizaphis graminum)***
[0] _____

Other (SPECIFY) _____
[ ] _____

Aphids
[0] _____

Other (SPECIFY) _____
[ ] _____

16. **ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:**

There is variability in the phenol. Percentages are noted.

OREGON STATE UNIVERSITY
SEED LABORATORY
CORVALLIS, OREGON 97331 U.S.A.
Phone: (541) 737-4464 FAX: (541) 737-2126

9900341

EXAMINATION REPORT

Test No. 172484 Date Recv'd 01-20-98

Laboratory Identification:

Triticum aestivum
Wheat

Research Sample

Kronstad
INDEX (RD007A); ACCT 25101
OSU CROP & SOIL SCIENCE RM 231B
CORVALLIS, OR 97331-3002

Sender's Identification:

NAME: Soft white winter wheat
LOT NO.: OR 898120
AMOUNT: Not Stated
FIELD NO.: 1997 S & T-C 13.1

ph-28.00

This sample has been examined for:

PHENOL STAINING REACTION

Found:

This sample did not stain uniformly based on 400 seeds examined.
The staining pattern was

Light	68.5%
Light medium	31.5%
Medium	00.0%
Dark medium	00.0%
Dark	00.0%

Date Completed:
01-23-98

COST CODE

p = purity
g = germination
fl = fluorescence
tz = tetrazolium
d = pest and disease
c = crop
w = weed
cw = crop and weed
r = rush
cc = copies

Adriel Garay, Manager

Table 4. Western Regional Uniform White Winter Wheat Nursery comparing Weatherford with Stephens and Madsen when grown at eight locations in 1995 in Oregon, Washington, and Idaho. (Tons per hectare)

Genotype	Average over all locations
Weatherford	7.6
Stephens	7.1
Madsen	7.3

Table 5a. Grain quality, milling quality and end-use quality of Weatherford, Stephens and Madsen grown in 1994 at the Pendleton Oregon Experiment site. (Forty-Seventh Annual Report of the Western Whet Quality Laboratory, C.F. Morris 1995)

Genotype	Test Weight	Grain Protein	Grain Hardness
Weatherford	61.1	13.7	33
Stephens	59.8	12.6	37
Madsen	60.2	13.7	38
Standard Mean	59.5	12.8	37
Nursery Mean	60.2	13.1	35
Nursery Standard Deviation	1.39	0.90	45

Table 5 b.

Genotype	Flour Yield	Flour Ash	Milling Score	Flour Protein	Flour Viscosity
Weatherford	73.1	0.35	87.1	11.6	58.4
Stephens	73.2	0.33	88.1	10.8	56.7
Madsen	73.1	0.33	86.8	11.7	56.3
Standard Mean	72.4	0.33	87.1	10.9	55.8
Nursery Mean	72.0	0.34	85.5	11.1	57.1
Nursery Standard Deviation	1.63	0.022	3.48	0.68	1.16

Table 5c. End-use

Genotype	Mixograph Water Absorption	Cookie Diameter	Top Grain Score	Sponge Cake Volume	Sponge Cake Score
Weatherford	58.4	8.21	4-*	1235	67
Stephens	56.7	8.35	6	1230	68
Madsen	56.3	8.29	7	1240	69
Standard Mean	55.8	8.42	6	1262	71
Nursery Mean	57.1	8.29	5	1238	70
Nursery Standard Deviation	1.16	0.224	1.1	41.3	4.1

* - or -2 represent one or two standard deviation away from the mean

Table 6a. Grain quality, milling quality and end use quality of Weatherford, Stephens and Madsen grown in 1995 at Pendleton Oregon Experimental site. (Forty-eight Annual Report of the Western Wheat Quality Laboratory. C. F. Morris 1996)

Genotype	Test Weight	Grain Protein	Grain Hardness
Weatherford	62.3	9.1	38
Stephens	60.9	7.9	25
Madsen	61.6	7.3	30
Standard Mean	60.9	7.9	25
Nursery Mean	61.7	8.4	27
Nursery Standard Deviation	0.86	0.76	7.4
N.	47	47	47

Table 6b.

Genotype	Flour Yield	Flour Ash	Milling Score	Flour Protein	Flour Viscosity
Weatherford	75.7	0.41-*	86.9	7.5	53.1
Stephens	76.2	0.38	87.8	6.6	53.6
Madsen	76.0	0.40-*	88.1	6.4	53.3
Standard Mean	76.2	0.38	87.8	6.6	53.6
Nursery Mean	76.0	0.40	87.5	6.8	52.8
Nursery Standard Deviation	0.66	0.025	2.17	0.60	0.53

* - or –2 represent one or two standard deviation away from the mean.

Table 6C

Genotype	Mixograph	Cookie Diameter	Top Grain Score	Sponge Cake Volume	Sponge Cake Score
Weatherford	53.1	8.54-	6	1285	74
Stephens	53.6	9.05	7	1250	69
Madsen	53.3	8.56	7	1220	70
Standard Mean	53.6	9.05	7	1250	69
Nursery Mean	52.8	8.83	7	1262	73
Nursery Standard Deviation	0.53	0.215	0.9	35.7	2.9

Table 7a. Grain quality, milling quality and end-use quality of OR898120 compared with Stephens and Madsen.

Genotype	Test weight	Grain protein	Grain hardness
OR898120	61.2	10.7	42
Stephens	60.9	10.5	32
LSD	1.2	0.8	15
P-Value	0.59	0.58	0.12
N	9	8	4
OR898120	61.2	10.7	42
Madsen	60.7	10.6	40
LSD	0.6	1.2	7
P-Value	0.11	0.76	0.44
N	5	5	4

7b. Milling and Flour Quality

Genotype	Flour yield	Flour ash	Milling score	Flour Protein	Flour viscosity
OR898120	73.3	0.41	84.7	9.1	69
Stephens	73.3	0.39	85.4	9.1	77
LSD	0.8	0.3	2.0	0.8	82
P-Value	0.8	0.16	0.45	0.89	0.45
N	8	8	8	8	2
OR898120	74.6	0.40	86.2	8.9	69
Madsen	74.8	0.39	87.3	9.1	81
LSD	0.9	0.03	2.2	1.4	6
P-Value	0.52	0.24	0.21	0.76	0.03
N	4	4	4	4	4

Table 7. continued

7c. End-Use Quality

Genotype	Mixograph water absorption	Cookie diameter	Top grain score	Sponge cake volume	Sponge cake score
OR898120	55.8	8.5	5.2	1232	69.2
Stephens	55.0	8.6	5.8	1206	66.7
LSD	1.2	0.2	1.1	35	2.9
P-Value	0.17	0.23	0.32	0.12	0.08
N	8	8	8	6	6
OR898120	56.3	8.4	4.5	1233	69.8
Madsen	55.5	8.3	4.5	1191	66.5
LSD	2.3	0.1	3.3	55	5.7
P-Value	0.32	0.61	0.66	0.09	0.17
N	4	4	4	4	4

Supporting information for Weatherford PVP application, provided 4/24/01.

Cephalosporium Stripe
Tables CS-1 to CS-3
Response indicated by % whiteheads at mid-grainfill

Table CS-1. Cephalosporium Stripe response as indicated by percent whiteheads, Wasco County.

Variety or Mixture	1998	1999	2000	**Mean**
Club				
Coda/Rohde Mix	2.2 KL	12.5 H	1.4 E	**5.4**
Coda	1.1 L	15.2 FGH	1.4 E	**5.9**
Temple	7.2 JK	12.5 FGH	0.8 E	**6.8**
Rohde	8.2 IJ	13.8 FGH	1.2 E	**7.7**
Hiller	--	12.8 GH	2.6 E	--
Common				
Madsen	15.5 GH	16.2 FGH	1.2 D	**11.0**
Madsen/Rod Mix	15.0 GH	15.0 FGH	6.2 C	**12.1**
Rod	13.8 HI	18.8 EFG	10.1 CD	**14.2**
Weatherford	21.8 F	19.2 DEF	6.5 C	**15.8**
Rod/Weatherford Mix	19.5 FG	19.8 DEF	8.9 C	**16.1**
Madsen/Stephens Mix	53.8 D	33.5 B	14.5 AB	**33.9**
OR939515	63.8 C	28.8 BC	16.8 B	**36.5**
Gene	71.2 AB	34.5 B	19.0 AB	**41.6**
Stephens	68.0 BC	52.5 A	28.4 A	**49.6**

Means followed by the same letter within a year are not significantly different (P=0.05) based on least significant difference (values first transformed, when necessary).

Table CS-2. Percent whiteheads, Gilliam County.

Variety or Mixture	1998	1999	2000	**Mean**
Club				
Temple	0.4 F	0.6 JK	0.05 G	**0.4**
Rohde	0.2 F	1.0 JK	0.07 FG	**0.4**
Coda/Rohde Mix	0.2 F	1.6 IJ	1.1 EF	**1.0**
Coda	0.1 F	2.5 HI	0.6 EFG	**1.1**
Hiller	--	0.5 K	0.4 FG	--
Common				
Madsen/Rod Mix	7.0 DE	5.8 FG	2.5 D	**5.1**
Rod	5.5 E	7.8 EF	3.3 CD	**5.5**
Madsen	9.8 D	6.1 FG	1.8 DE	**5.9**
Rod/Weatherford Mix	8.2 DE	9.2 EF	6.3 BC	**7.9**
Weatherford	15.5 C	3.9 GH	6.2 BC	**8.5**
OR939515	27.0 B	8.5 EF	11.8 AB	**15.8**
Madsen/Stephens Mix	22.0 B	27.8 AB	13.2 AB	**21.0**
Gene	37.5 A	19.5 BC	8.7 AB	**21.9**
Stephens	37.5 A	34.2 A	14.2 A	**28.6**

Means followed by the same letter within a year are not significantly different (P=0.05) based on least significant difference (values first transformed, when necessary).

Table CS-3. Percent whiteheads, Sherman County.

Variety or Mixture	1998	2000	Mean
Club			
Coda/Rohde Mix	9.0 I	0.8 F	**4.9**
Rohde	9.3 HI	1.5 EF	**5.4**
Coda	10.0 HI	1.3 EF	**5.6**
Temple	18.8 DE	1.0 F	**9.9**
Hiller	--	2.5 E	--
Common			
Madsen	13.0 GHI	0.8 F	**6.9**
Madsen/Rod Mix	13.5 FGH	7.2 BCD	**10.4**
Rod	11.0 GHI	11.2 AB	**11.1**
Rod/Weatherford Mix	17.7 DEF	5.6 CD	**11.6**
Weatherford	19.3 D	5.4 D	**12.4**
Madsen/Stephens	25.0 C	8.1 BCD	**16.6**
Gene	35.3 B	7.0 CD	**21.2**
OR939515	37.0 B	8.6 BC	**22.8**
Stephens	41.7 A	15.1 A	**28.4**

Means followed by the same letter within a year are not significantly different (P=0.05) based on least significant difference (values first transformed, when necessary).

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EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 *(5 U.S.C. 552a)* and the Paper Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
State of Oregon, by and through the State Board of Higher Education on behalf of Oregon State University.	OR898120	Weatherford
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
c/o Office of Technology Transfer Oregon State University 312 Kerr Administration Building Corvallis, OR 97331-2140	(541) 737-0674	(541) 737-3093
	7. PVPO NUMBER	9900341

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block.
If no, please explain.

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. National or a U.S. based company?
If no, give name of country

☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(If needed, use the reverse for extra space)*:

Dr. Warren Kronstad, the original breeder of the subject variety, is an employee of Oregon State University and by agreement between Oregon State University and Warren Kronstad, all inventions, including new plant varieties, developed by Warren Kronstad belong to Oregon State University.

Please Note:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) ot the Plant Variety Protection Act for definitions.